0.5 NA Tool: Pushing EUV Research to the Next Level

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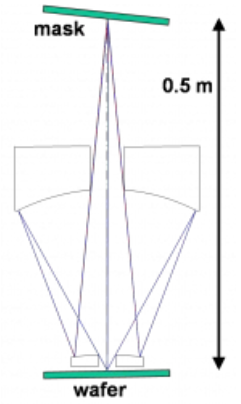
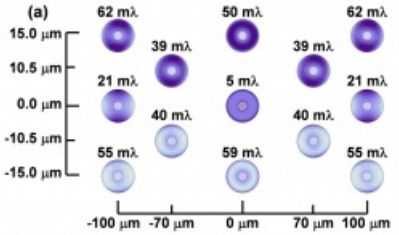
The next level of EUV Lithography research will require even greater resolution and control of optical aberration than is currently achieved. This will require building the successor to the Sematech-Berkeley MET facility, for which the optic design has been completed and optics manufacturers have been engaged. The new design will have:

- **NA = 0.5**
- **Resolution = 8 nm**
- **Magnification = 5x**
- **Field of View = 200x30 m**
- **Mask angle of incidence = 6**

Optical model courtesy of Russ Hudyma, Hyperion



The design aberration across the field of view has been calculated courtesy of Michael Goldstein, SEMATECH:



Sizable process windows, for 12-nm features using conventional illumination

70 nm DOF on 12 nm dense lines	**40 nm DOF on 12 nm iso lines**